

PUMP MAINTENANCE TECHNICIAN

DEFINITION

To perform a variety of skilled pump operation, repair and maintenance work related to wastewater lift stations, municipal swimming pools, public display fountains, aquarium pump equipment and their related electrical control centers; and to perform related work as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from Pump Maintenance Supervisor.

ESSENTIAL FUNCTIONS – Functions may include, but are not limited to, the following:

Inspect, operate, maintain and repair of wastewater lift station facilities including pump motors, diesel generators, motor control centers, natural gas engines, piping, wiring, switches, and valves.

Operate, maintain, and repair public display fountains and municipal swimming pool systems including circulation, filtration, chemical feed, water heating, solar heating system and associated electrical systems.

Maintain and repair seawater circulation, filtration, ozonation systems and related electrical systems.

Inspect and adjust equipment; clean and lubricate as necessary; troubleshoot and repair operating problems; rebuild and modify equipment as necessary.

Perform routine chemical tests, evaluate results and adjust chemical balance accordingly; change chlorine cylinders.

Install, monitor and remove sewer flow recorder as requested.

Read and interpret plans, blueprints, schematics, manuals and specifications.

Use and maintain a wide variety of hand, power and shop tools and test equipment related to the work.

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Observe safe work methods and safety precaution related to the work; utilize appropriate safety equipment in working around hazardous chemicals, gases and raw sewage; ensure proper storage of chemicals.

Work underground in confined spaces to remove obstructions or make repairs.

Perform routine carpentry and painting work on equipment and facilities and incidental landscape maintenance duties.

Respond to emergency situations in off-hours as required.

Keep work related records using a computer.

Operate City vehicles with attachments skillfully and safely.

Set up and operate confined space entry equipment.

In the absence of the supervisor, assume responsibilities as needed.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer services.

Perform other related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Methods, practices materials, tools and equipment used in the operation adjustment, maintenance and repair of mechanical equipment common to pumping stations and swimming pools.

Use and maintenance of a wide variety of hand, power and shop tools, test equipment and other equipment related to the work.

Rigging principles and techniques.

Mathematical computations used in the area of assignment.

Pertinent rules, laws, and policies related to area of assignment.

Practices and procedures of traffic control and flagging.

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Safe work methods and safety regulations pertaining to work assignment, including precautions in handling and storing chlorine, acids and other chemicals and the use of personal protective equipment.

Computer equipment and software applications related to assignment.

English usage, spelling, grammar, and punctuation.

Ability to:

Read and interpret mechanical drawings, plans, schematics, and specifications.

Use proper engineering practices to make as-built mechanical and electrical drawings sketches.

Estimate labor and materials for proposed work.

Diagnose and repair defects in a variety of mechanical equipment common to wastewater lift stations; municipal pools, public display fountains, and aquarium pump equipment.

Analyze difficult maintenance and operational problems.

Troubleshoot and repair basic electrical problems.

Work around and with power and lighting circuits, switches and fuse panels 120/208 VAC and 277/480 VAC.

Use and operate tools and equipment related to assignment, including personal protective equipment.

Keep work related records and prepare reports using a computer.

Work effectively at remote locations without direct supervision.

Operate City vehicles observing legal and defensive driving practices.

Follow oral instruction; read, interpret, follow and explain written instructions, construction sketches and equipment manuals.

Use initiative and sound independent judgment within established guidelines.

Communicate clearly and concisely, both orally and in writing.

Work overtime and off-hours shifts when necessary or directed.

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Establish and maintain effective working relationships with those contacted in the course of work.

Work with various cultural and ethnic groups in a tactful and effective manner.

Experience and Training

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Three years of responsible experience in either work involving pump maintenance operation and repair work or as an electrician.

Training:

Equivalent to the completion of the twelfth grade

License or Certificate

Possession of a valid California driver's license.

PHYSICAL DEMANDS

On a continuous basis, sit, stand, bend, climb ladders (up to 30 feet), stoop, kneel, crouch, crawl and twist for varying periods in the course of work; write and use keyboard to communicate through written means; lift or carry objects weighing up to 100 pounds with assistance.

WORKING ENVIRONMENT

Work is performed in both indoors and outdoors environments with moderate noise to heavy noise level; exposure to the external environment is required when going to worksites; fieldwork is frequently performed with exposure to disagreeable and potentially hazardous substances and exposure to high voltage; some work is performed in tightly enclosed and confined spaces.

4/03